

What is claimed is:

Claim 1

1. A method comprising:
generating a compressed medical image from a source medical image;
transmitting the compressed medical image to a remote view station for
display;
selecting a region of the displayed medical image; and
applying image analysis operations to a region of the source medical image
corresponding to the selected region of the compressed medical image.

Claim 2

10 2. The method of claim 1 wherein transmitting the compressed medical image includes
transmitting the compressed medical image over a global packet-switched network.

Claim 3

15 3. The method of claim 1 and further including transmitting region information from the
remote view station to an image server, wherein the region information defines the
selected region of the displayed medial image.

Claim 4

4. The method of claim 3, wherein the region information is a series of pixel
coordinates.

Claim 5

20 5. The method of claim 1, wherein applying the image analysis operations includes
outputting a score and communicating the score to the remote view station for
display.

Claim 6

25 6. The method of claim 1 and further including receiving a diagnosis from the remote
view station and associating the diagnosis with the source medical image in a
database.

Claim 7

30 7. The method of claim 1, wherein selecting the region of the compressed medical
image includes receiving input from a pointing device controlled by a user to outline
the region of the compressed medical image.

8. The method of claim 1, wherein generating a compressed medical image includes applying a compression algorithm that reduces data losses that are detectable with human vision.

5 9. The method of claim 8, wherein generating a compressed medical image includes applying a JPEG compression algorithm.

10. A system comprising
an image server storing a source medical image;
a remote view station communicatively coupled to the image server to receive a compressed version of the source medical image, wherein the remote view station includes an input device for selecting a region of the compressed medical image, and further wherein the image server applies an image analysis operation on a region of the source medical image that corresponds to the selected region of the compressed medical image.

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11. The system of claim 10, wherein the remote view station transmits region information from the remote view station to the image server, wherein the region information includes a plurality of pixel coordinates outlining the selected region of the compressed image.

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12. The system of claim 10, wherein the image server applies the image analysis operations to generate a score and communicates the score to the remote view station for display.

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13. The system of claim 10, wherein the image server includes a database associating a diagnosis received from the remote view station with the source medical image.

30 14. The system of claim 10, wherein the remote view station includes a pointing device controllable by a user to outline the region of the compressed medical image.

15. A computer program, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

- generate a compressed medical image from a source medical image;
- transmit the compressed medical image to a remote view station for display;
- 5 receive region information from the remote view station, wherein the region information defines a region within the compressed medical image; and
- apply image analysis operations to a region of the source medical image as a function of the region information.

10 16. The computer program of claim 15 and further including instructions to cause the processor to transmit the compressed medical image over a global packet-switched network.

15 17. The computer program of claim 15 wherein the region information is a series of pixel coordinates.

20 18. The computer program of claim 15 and further including instructions to cause the processor to output a score and communicating the score to the remote view station for display

19. The computer program of claim 15 and further including instructions to receive a diagnosis from the remote view station and associate the diagnosis with the source medical image in a database.

25 20. The computer program of claim 15 and further including instructions to apply a compression algorithm that reduces data losses that are detectable with human vision.

21. A computer-readable medium having a data structure stored thereon comprising:

- a data field identifying a source medical image;
- 30 a data field identifying a compressed version of the source medical image; and
- a data field storing an output score from an image analysis operation applied to a region of the source medical image.

22. The computer-readable medium of claim 21, wherein the data structure includes a data field associating a diagnosis with the source the medical image.

23. A method comprising:
compressing a source medical image at a compression level;
transmitting the compressed medical image to a remote view station for display;
receiving region information from the remote view station, wherein the region information defines a region of the compressed medical image; and
compressing a region of the source medical image at a second compression level as a function of the region information.

24. The method of claim 22 wherein transmitting the compressed medical image includes transmitting the compressed medical image over a global packet-switched network.

25. The method of claim 23, wherein the region information is a series of pixel coordinates.

26. The method of claim 23 and further including receiving a diagnosis from the remote view station and associating the diagnosis with the source medical image in a database.

27. A method comprising:
transmitting a medical image to a remote view station for display;
receiving region information from the remote view station, wherein the region information defines a region of the displayed medical image; and
locally applying an image processing operation at the image server to a region of the source medical image as a function of the region information.

28. The method of claim 27 wherein transmitting the medical image includes transmitting the medical image over a global packet-switched network.

29. The method of claim 27, wherein the region information is a series of pixel coordinates.

5 30. The method of claim 27, wherein transmitting the medical image includes compressing medical image.